Maine Department of Environmental Protection
Instructions for Chemical Specific WET and Data Report Form
"ToxSheet Dec05.xls"
December 2005

This form is an *Excel*® spreadsheet that is to be used for reporting of tests conducted pursuant to Chapter 530 of the Department's rules. The form reports the results of various tests and certain calculations that are intended to assist discharge sources in interpreting the results. This is for informational purposes only and official compliance reviews will be conducted by the Department.

- The results of full priority pollutant testing *must* be submitted to the Department electronically on disk using the spreadsheet and accompanied by a paper copy signed in the upper right corner. The analytical chemistry may also be submitted in the same manner.
- Whole Effluent Toxicity (WET) results may be entered on the spreadsheet for informational evaluation. Official reports of WET results must be reported on separate DEP forms for that purpose.
- When only "analytical chemistry" tests are being conducted, reports can be made either using the spreadsheet or the chemistry results portion of the WET test reporting forms.

The spreadsheet is in standard *Excel*® format. Much of the sheet is write-protected and some columns are hidden. Cell references used here are as they appear on the screen.

Facility Information. In rows 1, 4, 5, 6, 7 and 8 there are several cells that contain essential information about the facility and test day. These must be filled in for the spreadsheet to work.

L1: *Facility Name* - Enter the facility name.
O1: *MEPDES #* - Enter the facility's federal discharge permit number in the format of ME0xxxxxx.
O2: *Pipe #* - Indicate the discharge pipe number for the discharge being tested. This is typically in the form of "001A" and can be found on the limits page of the discharge permit.
L4: *Licensed Flow* - Provide the facility's design or permitted flow in MGD for the discharge point at which the test was done. This is typically found on the limits page of the permit. If more than one flow is listed, use the monthly average flow.
P4: *Flow for Day* - The facility's actual daily flow in MGD for the day of the testing should be entered.
T4: *Flow Avg. for Month* - The facility's actual monthly average flow in MGD for the month during which the test was done should be entered.
P6: *Date Sample Collected* - The day of sampling should be entered. Use the day representing the majority of the composite sample, typically the day a sampler is set up.
L8: Indicate if the discharge is to fresh or marine waters with an "F" or "M" respectively. This allows the spreadsheet to select the proper water quality criteria and tests.

Dilution Factors to be entered can be found in the Fact Sheet of the most recent permit. Alternately, the Department can provide this information upon request. It is should be noted that the Department updates dilution factors as new information becomes available. Dilution factors are sometimes expressed as a ratio, for example 132:1. On the spreadsheet, do not enter the ":1" and use just the numeric value, in this case 132.

L5: *Acute dilution factor* - Is the Acute dilution factor for the discharge pipe. It is important to note that for fresh water discharges, the acute dilution will reflect if the discharge is considered to have rapid mixing or not. The terms "¼ Acute" or ¼ 1Q10" are often used to indicate that rapid mixing is not achieved. The Fact Sheet should have this information.
L6: *Chronic dilution factor* - Is the Chronic dilution factor for the discharge pipe.
L.7: *Human health dilution factor* - Is the Human Health dilution factor for the discharge pipe.

Laboratory Information. Laboratories (or facilities) should enter the following information in the appropriate cells of the spreadsheet.

T6: *Date sample analyzed* - The date the sample was analyzed.
P8, U8, P9: *Laboratory information* - Laboratory name, telephone, and address.
P11: *Lab contact* - The name of a contact person at the laboratory.
U11: *Lab ID #* - The laboratory's ID number issued by its certifying agency.

Entering test results. The numeric results of tests should be typed into the spreadsheet. Please use a "<" symbol to indicate "non-detect" at a specified concentration, where appropriate.

Q17 - Q20: *WET Result* - Enter WET results as appropriate. Although WET results are typically reported as percent, do not use percent sign in the entry.
Q22 - Q30: *WET Chemistry* - Enter WET Chemistry analysis results in specified units. These parameters characterize the effluent and receiving waters, but do not have specific water quality criteria and are not judged for exceedences.
Q34 – Q45: *Analytical Chemistry* - Enter Analytical Chemistry results in ug/L, or as specified.
Q49 - Q163: *Priority Pollutants* - Enter priority pollutant results in these cells.
P22 - P163: *Receiving Water or Ambient* - Receiving water concentrations may be entered as required or available, usually related to WET testing.

Understanding the Results. For more in-depth technical information, refer to the State Surface Water Toxics Control Program, Chapter 530 and companion rule Chapter 584, and their accompanying program guidance fact sheets. Also, USEPA Technical Support Document for Water Quality-based Toxics Control, [EPA/505/2-90-001] describes much of the derivation of Toxics program rules.

It is very important to realize that the evaluations performed in the spreadsheet are for a single sample only. The spreadsheet does not do reasonable potential calculations for all tests a facility has done over the past 5 years as prescribed in Chapter 530. It also does not consider the effects of multiple discharges into the same fresh water river system. These calculations cannot be done on a single sample for one facility, and the Department will perform them using other evaluation

tools. Accordingly, calculations in this spreadsheet do not reflect future permit limits that would be based on these considerations.

WET *Effluent Limits* for individual organisms, fresh or marine, are calculated in cells M17 **–** M20for acute and N17 – N20 for chronic. These values are compared to reported effluent values.

Column L **–** *Reporting Limits* - contains the list of Reporting Limits for the priority pollutants. These values are specified by the Department pursuant to Chapter 530.

Columns M, N and O – *Effluent Limits* - contain facility effluent limits for acute, chronic and human health, respectively. The number is determined by multiplying Chapter 584 water quality criteria by the facility's respective dilution factor. The calculation is made automatically within the spreadsheet, and pursuant to Chapter 530, a background allocation of 10% and a water quality reserve of 15% are figured into these calculations. The resulting effluent concentration is what would be used to set a pounds limit in a permit using the facility's design flow. The best use of the concentration here is to compare it to the test result with the assumption that flows are at permits limits to allow a common basis for the comparison.

Note: If "NA" appears for a given priority pollutant limit, it means no formal criteria has been established. The presence of "NA" does **not** mean the specific chemical is non-toxic, and evaluation will be done on a case-by-case basis.

In column S – *Reporting Limit Check* - if "High" occurs, the reported "less than" concentration is greater than the Reporting Limit listed in column L. Contact your laboratory for an explanation.

Columns T (acute),U (chronic),and V (health), - *Possible Exceedence* - indicate if a possible exceedence of the criteria for that test parameter is found after test results are entered. These evaluations are primarily to assist facilities in understanding their test results and possible implications. The calculations are for a single facility's discharge and do not reflect watershed allocations for freshwater discharges. Official compliance determinations will be conducted by DEP. The spread sheet does evaluations on a mass (pounds) basis using the facility's actual flows as entered in cells P6 and T6. The actual discharge quantity is compared to the allowable quantity calculated using the effluent limits and the facility design flow. If the actual discharge quantity is larger and allowable, a "YES" appears. Reported concentrations below DEP's reporting limit are not considered to be exceedences. A high reporting limit will not show an exceedence since "less than" values cannot be accurately evaluated. However, the effluent may still contain pollutants at levels of concern.